

Minutes, 10/20/04 Tevatron BPM Upgrade Meeting  
Stephen Wolbers

This set of minutes, and all future minutes, are or will be deposited in the Beams Document Database as document number 792.

The agenda as announced consisted of:

1. Report from Bob and Steve
2. Report from subproject leaders
3. Report from Technical Coordinator -- Jim Steimel
4. AOB

1. Report from Bob and Steve.

- We will be meeting Thursday at 1:30 to discuss commissioning plans, among other things.

2. Reports from L2 Managers

Tim Kasza:

- The two early/prototype Dawn VME crates have now been upgraded.
- Installment of parts in the service buildings continue. Rails have been installed or at least placed in the remaining service buildings.
- Stew Bledsoe completed the layout of a temporary filter board that has 16 channels per board. These may be needed for commissioning, depending on the schedule for fabrication of the final filter boards.
- No new cable deliveries in the last week.
- Echotek testing. 104 boards have been received. 37 boards are either issues out or are ready for use. 67 boards are in the process of being tested. 13 boards are currently listed as "failed testing" for various reasons, including bad ADC, nonlinearities, other. Some of the problems are repeatable, some move around on the board under repeated tests. Details can be found in AD doc #1381-v5. The failures need to be better understood and classified so that they can be resolved or the boards returned to Echotek for repair/replacement.
- 527 pairs of filters have arrived. 5 pairs were "baked" at high temperature. No significant changes in the phase matching was seen. Tim showed some details of the 10 filter pairs that "failed" the filter

criteria (of the 39 pairs tested so far). Plots were shown and these can be found in AD doc #1418-v1. Testing will continue on the filters that have arrived within the last week and on the last shipment that arrives this week.

Vince Pavlicek:

- The 5 "pilot" filter boards are being prepared for use in the A3 commissioning and for the test stand. This includes using sockets to attach the filters so they can be removed later and attached to the final filter boards. Vince asked whether the 4 matched filter pairs need to be matched on a single filter board. The answer is no.
- A layout exists for the temporary filter boards that may be required to bridge between the pilot boards and the production filter boards. Issues discussed were cost (\$500 for fabbing 10 boards), who could do the work, attenuators, timescales, etc.
- Bill Haynes is working on TC1k decoding.
- Both the timing and filter boards are in procurement in preparation for bidding. The expectation is a 2 week bid and a minimum of 5 weeks for fabrication and delivery. This is close to the end of the year and will have to be watched very closely. The temporary filter boards mentioned above may have to be used to continue commissioning beyond the first service building.
- Panels for the cables above and below the VME crate are being made. Two panels are being made and can be used in A3 to see how the system looks/works.

Margaret Votava:

- Working on turn by turn programming now. Have found some limitations which are being worked on and will be alleviated.

Brian Hendricks:

- Diagnostics work continues. Brian is available to help out during the absence of Bob West for the two weeks he is away.
- Brian continues to make progress on the database infrastructure for the SDA data.
- Question of splitting the A3 house into old and new TeV BPM readout at the beginning of commissioning. Can it be done? Brian says

yes. The question of whether we take the entire house out of the old system and start the machine without A3 TeV BPM is still open.

Rob Kutschke:

- Wrote a note analyzing some of the pre shutdown data to study the position and resolution dependence on intensity (# of bunches). AD doc #1406. Next he will investigate uncoalesced and coalesced beam.

- Rob discussed some ideas of how to compute closed orbits from TBT measurements.

### 3. Technical Coordinator -- Jim Steimel

- The connection of the pbar ends of the B0 BPMs will take place next week, not this week.

### 4. AOB.

- Will meet Thursday October 21 at 1:30 to discuss Echotek processing and commissioning plans.